

Fig. 1A

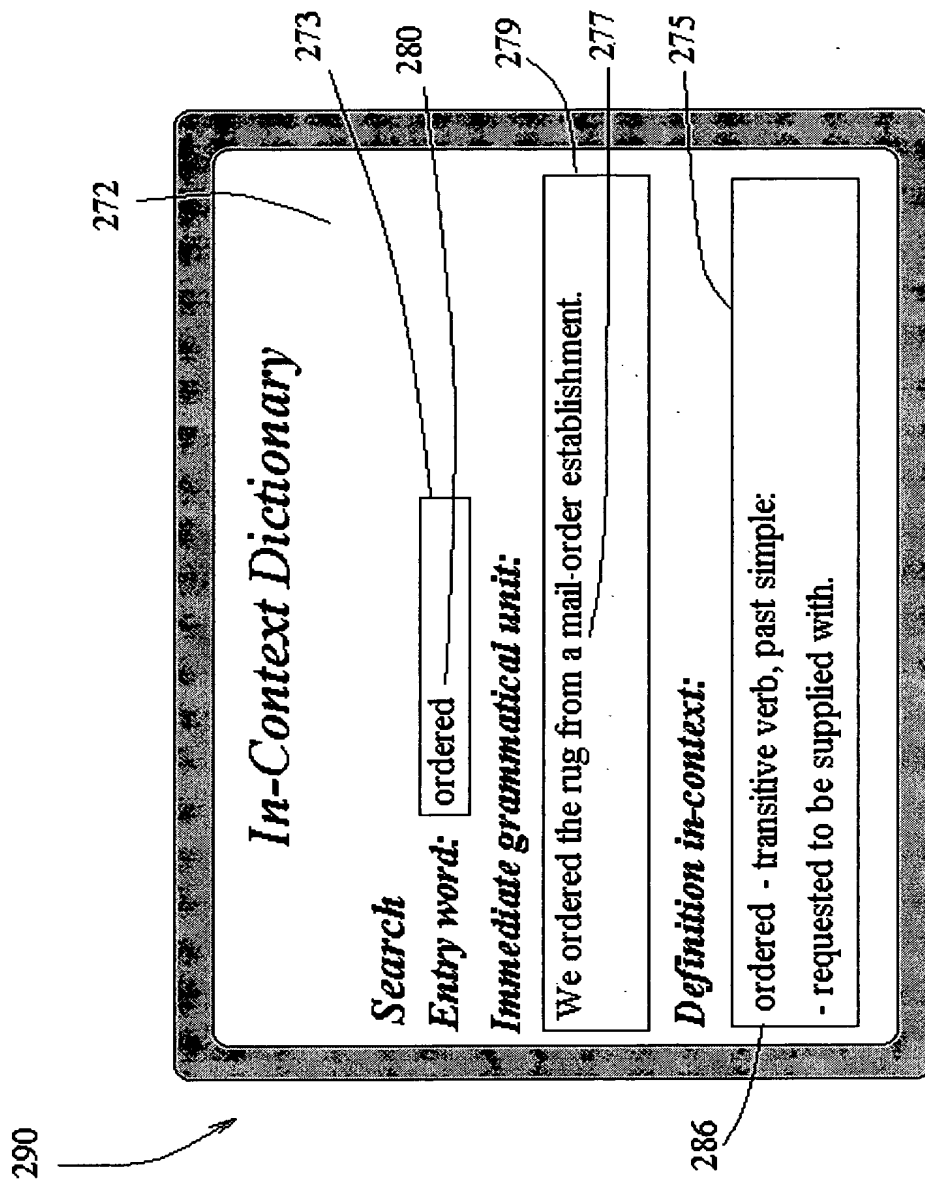


Fig. 1B

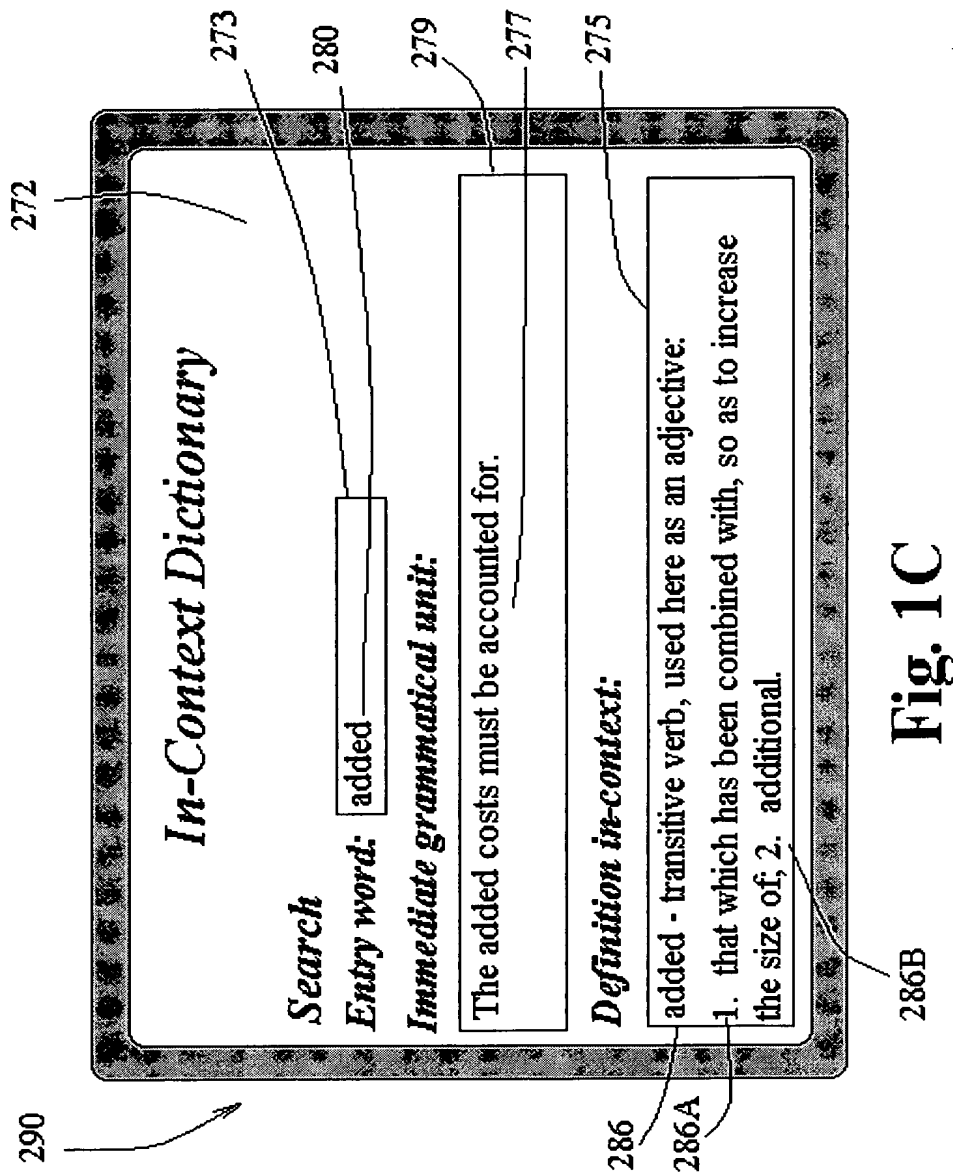


Fig. 1C

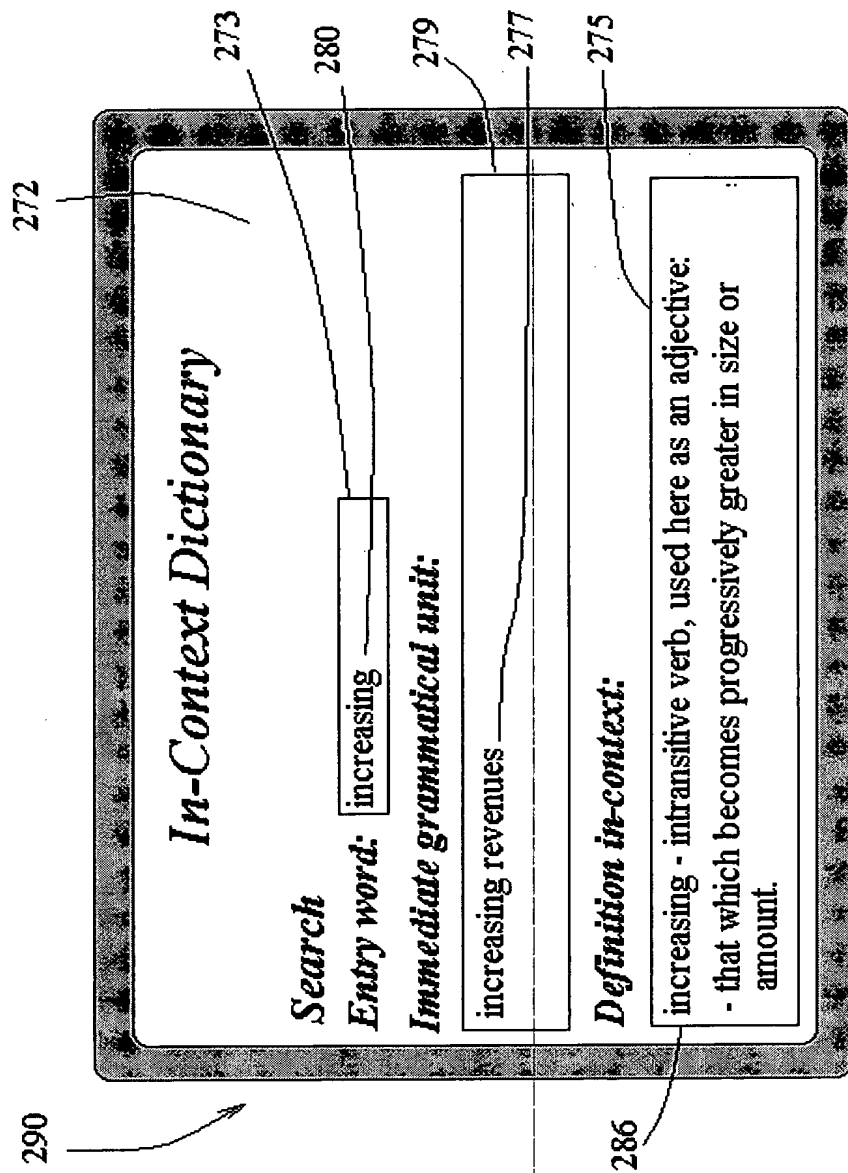


Fig. 1D

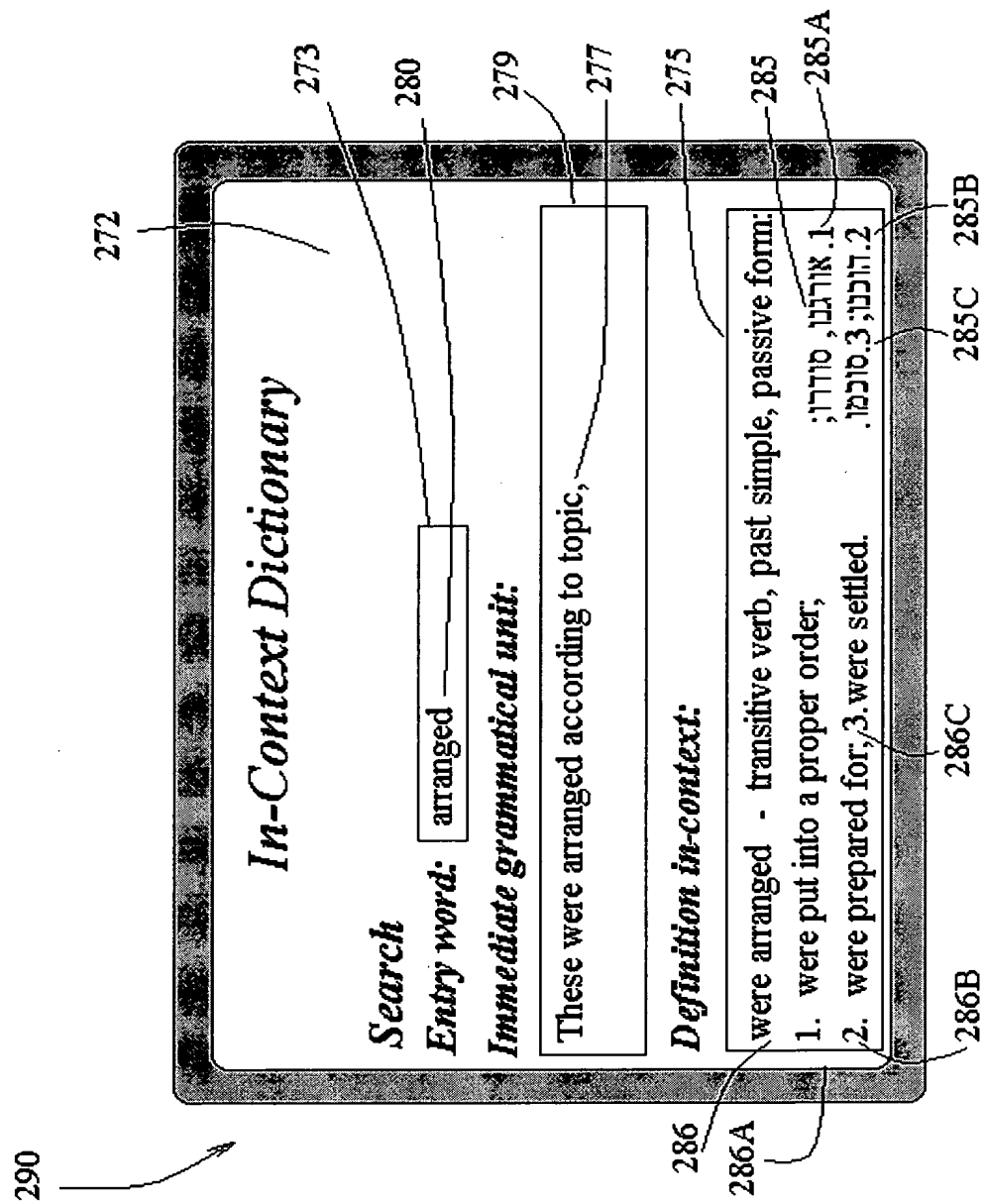


Fig. 1E

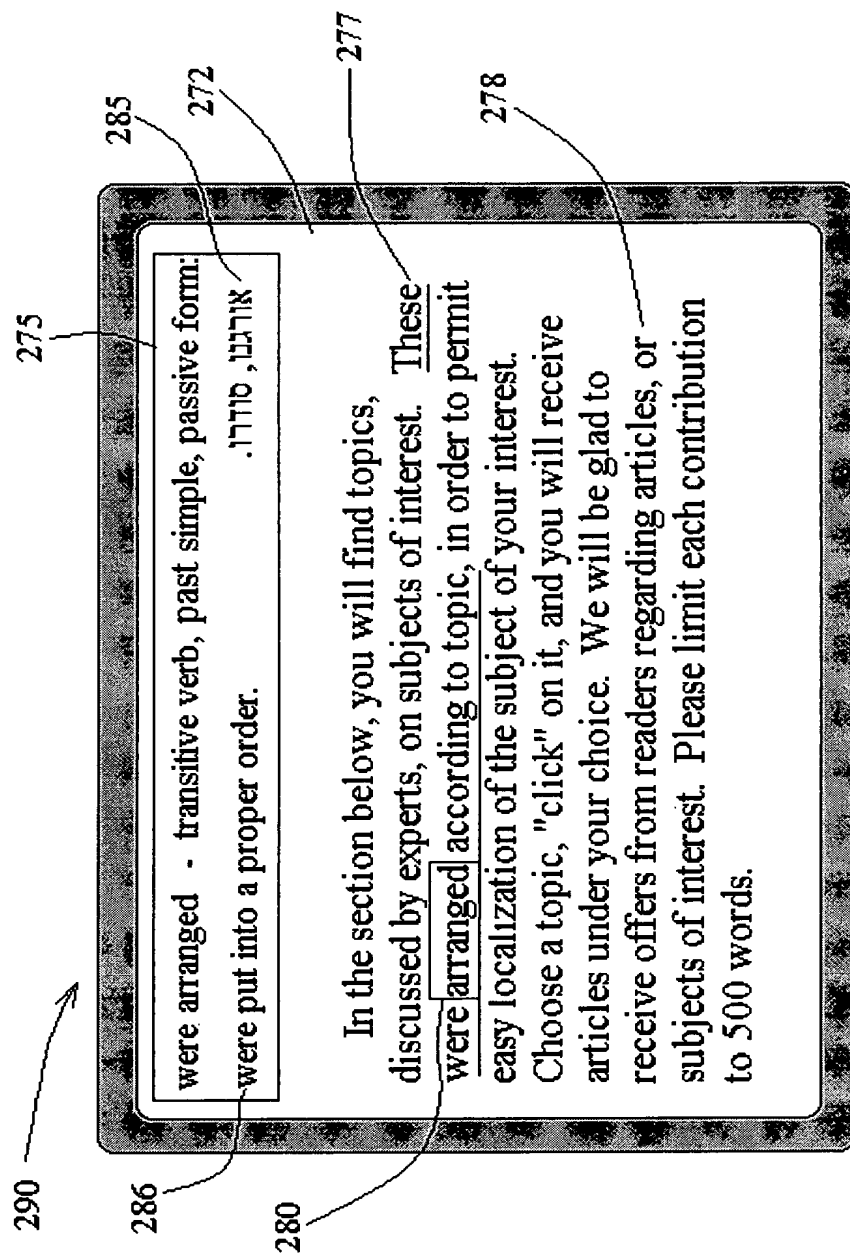


Fig. 1F

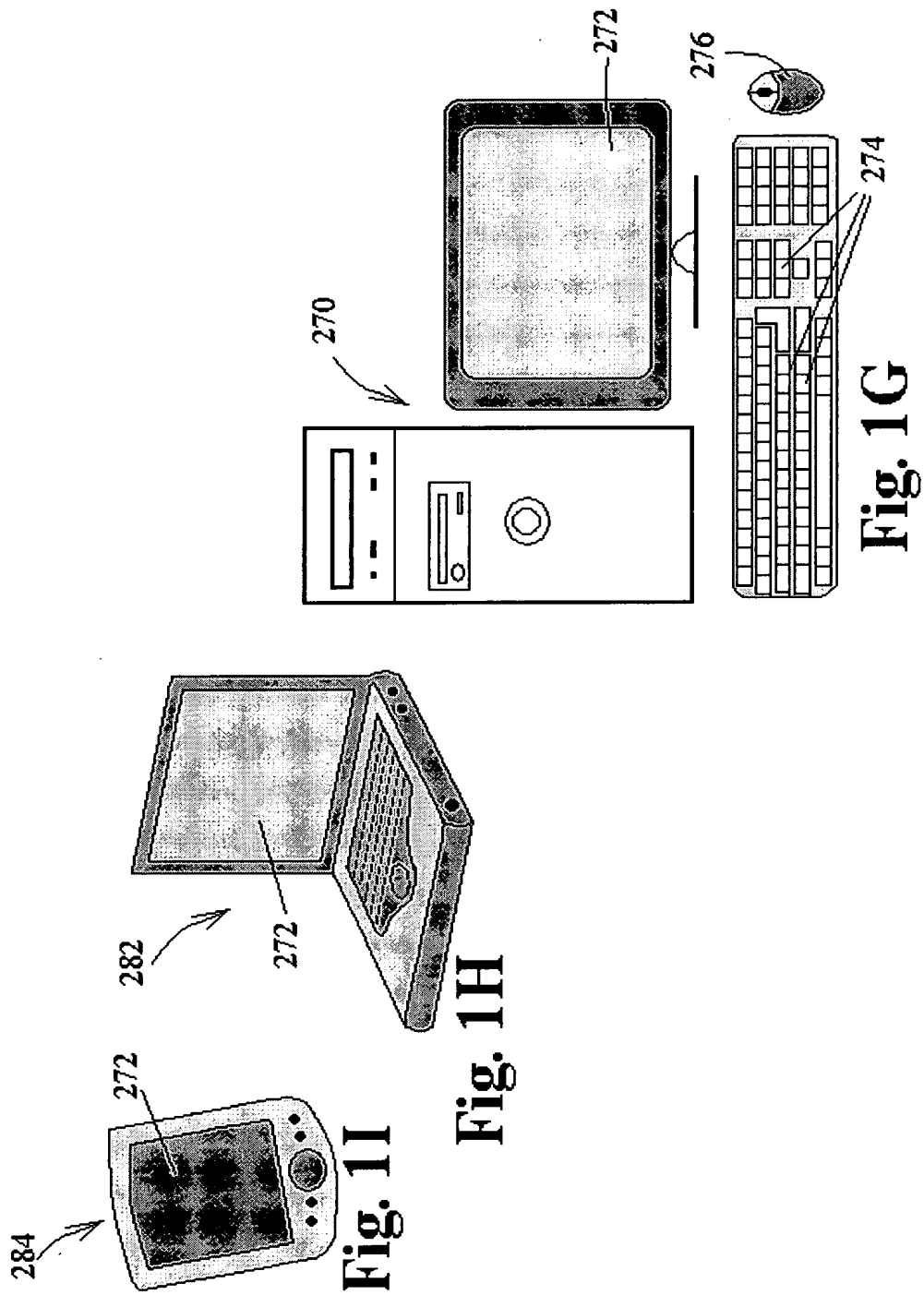


Fig. 1J

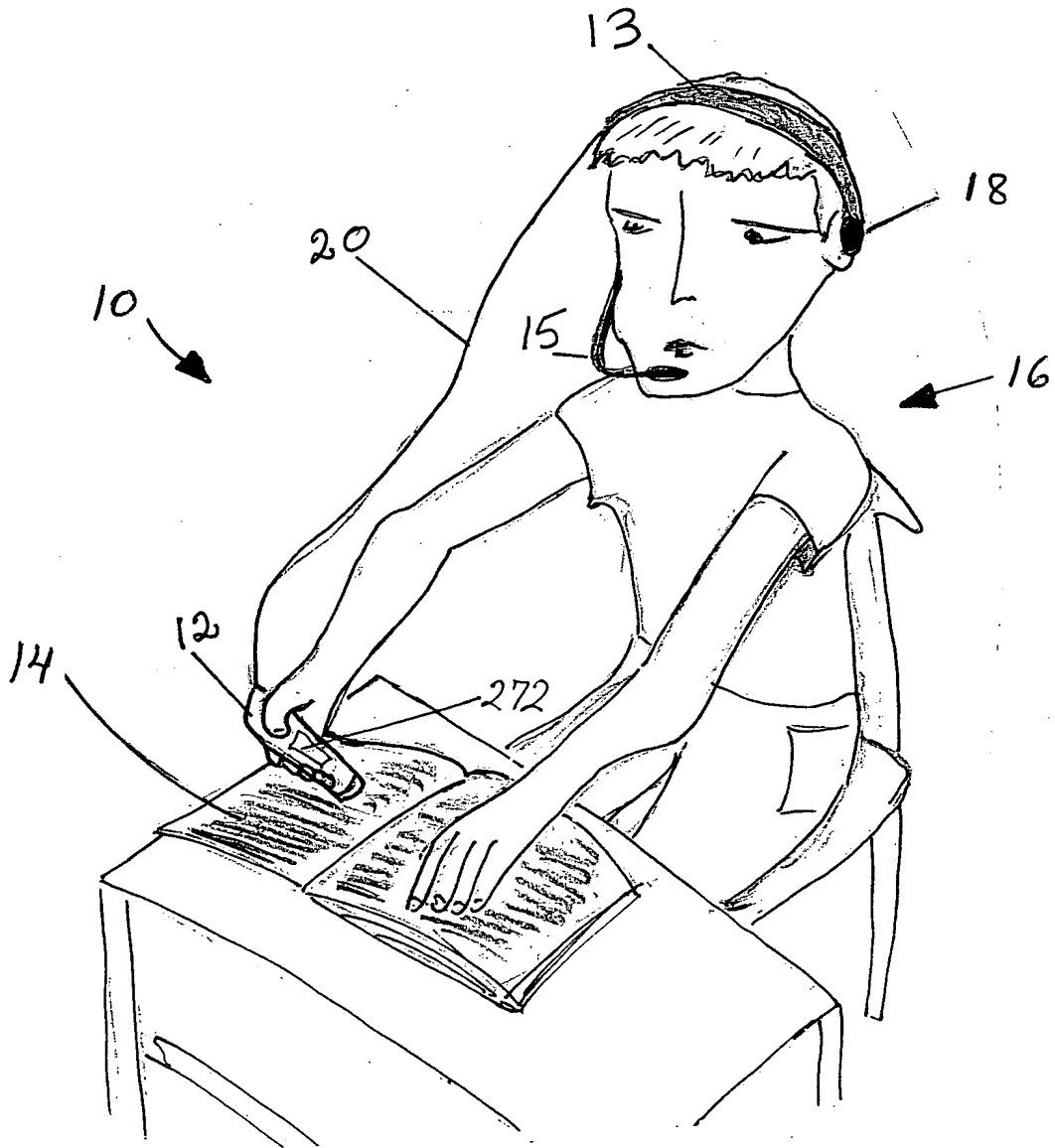


Fig. 2A

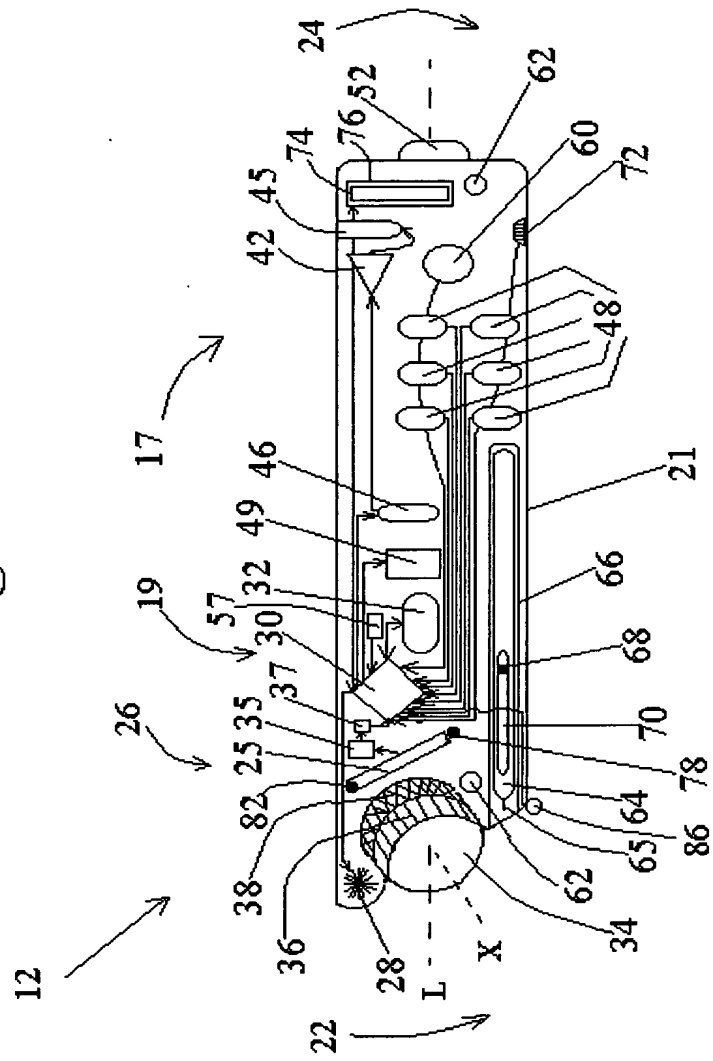


Fig. 2B

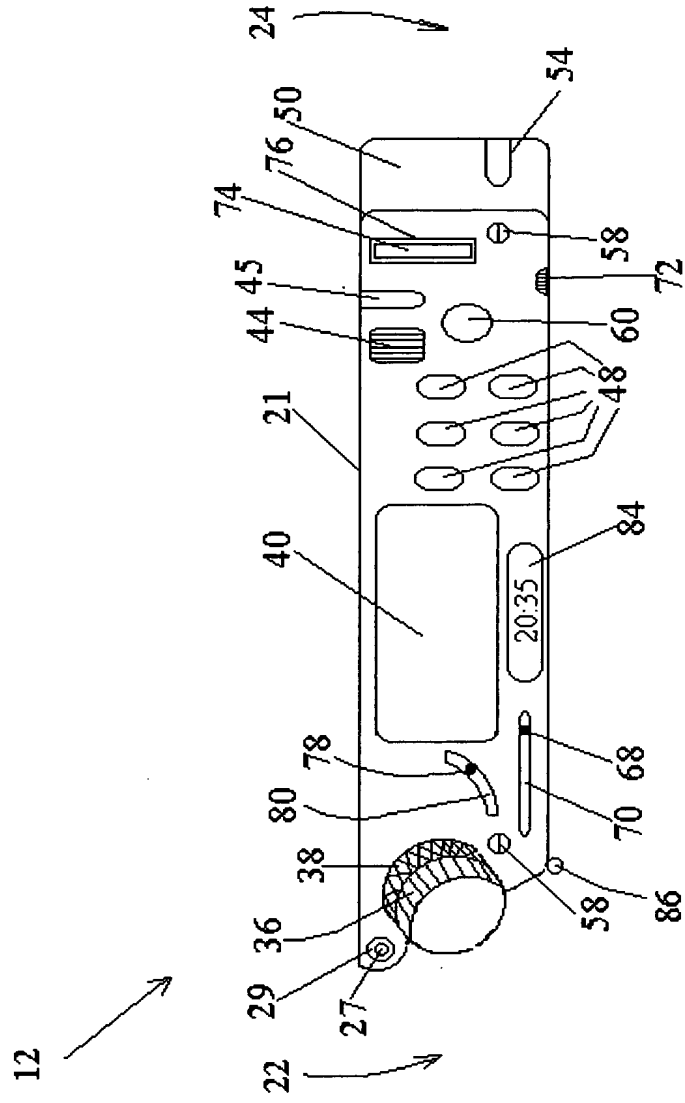


Fig. 3

100

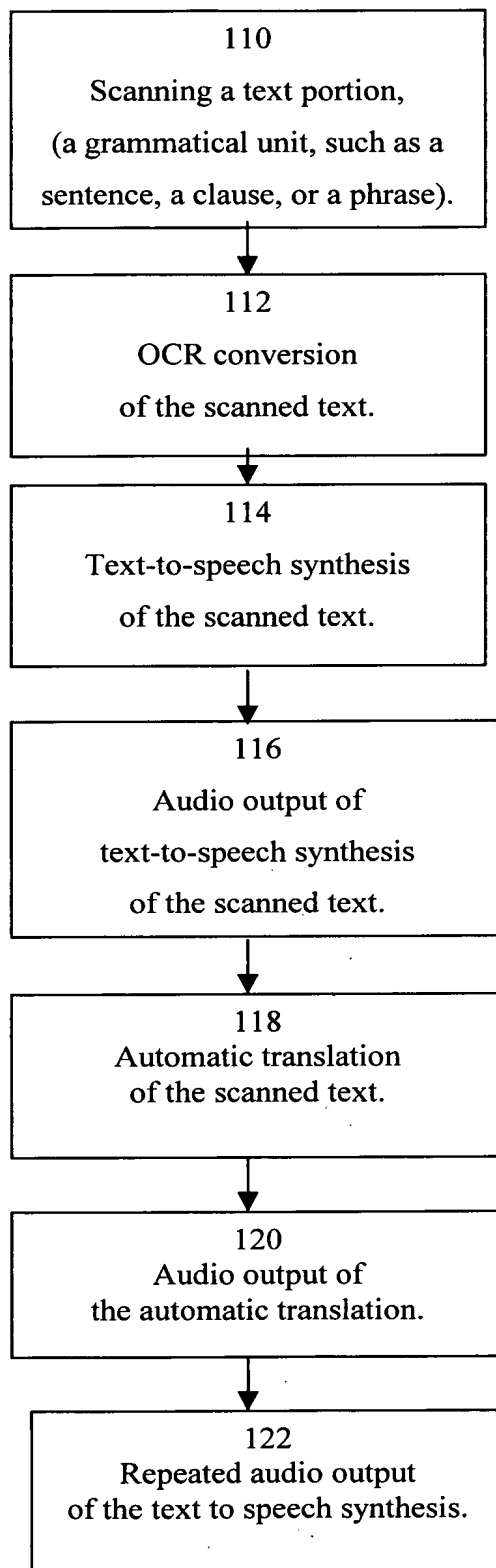
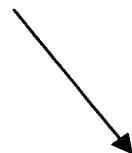


Fig. 4

130

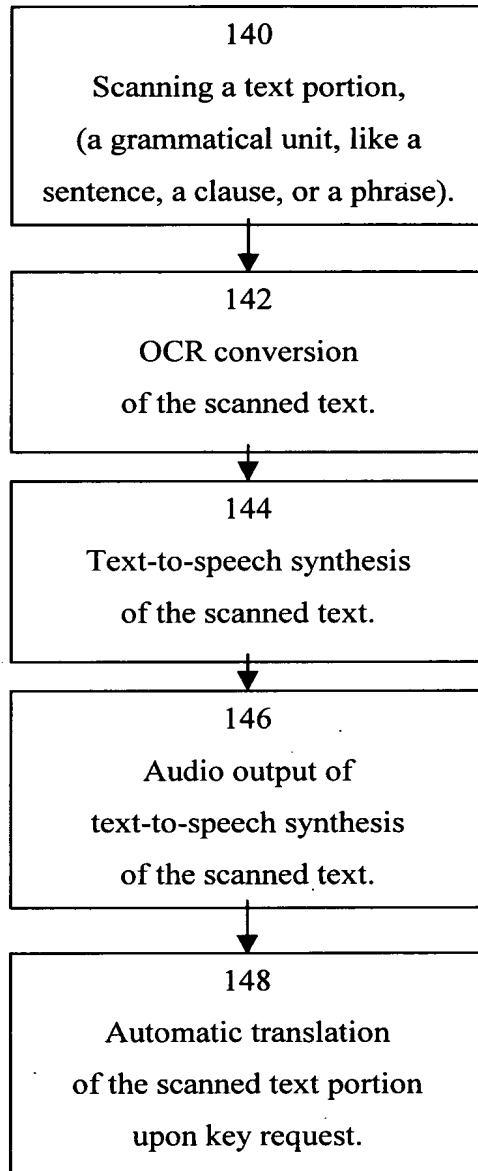
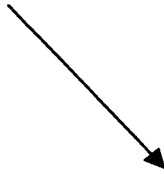


Fig. 5

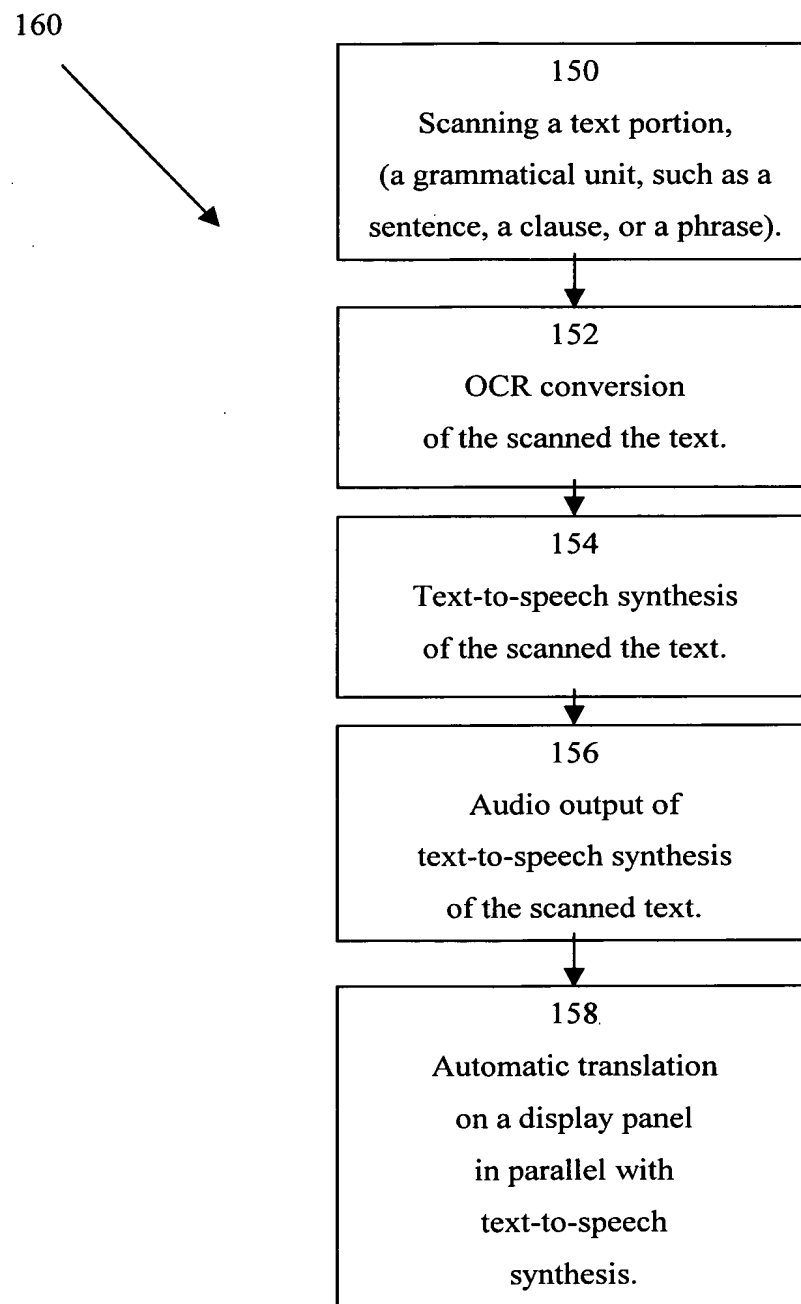
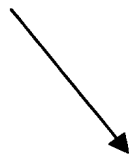


Fig. 6A

240



242
Scanning a text portion,
(a grammatical unit, such as a
sentence, a clause, or a phrase).



244
OCR conversion
of the scanned text.



246
Marking a dictionary entry in
the scanned text.



248
Performing a contextual analysis
of the immediate grammatical
unit.



250
Providing a definition or a
translation to the dictionary entry,
in accordance with its function.



252
Providing a more specific
definition or translation to the
dictionary entry,
based on contextual clues.

Fig. 6B

260

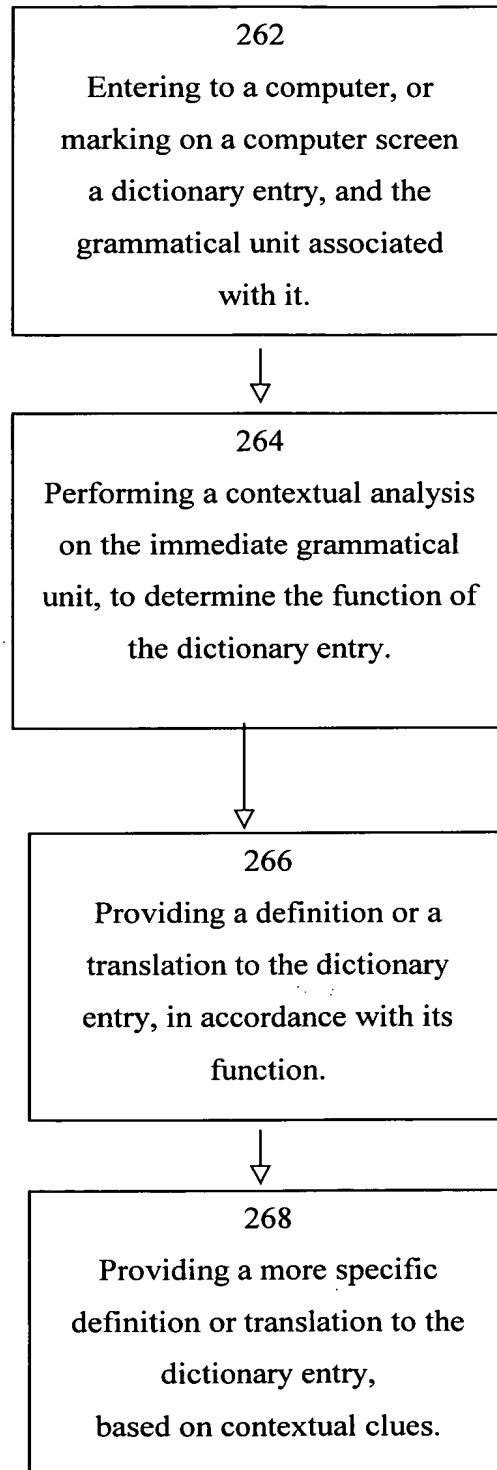
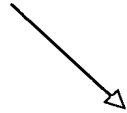


Fig. 7

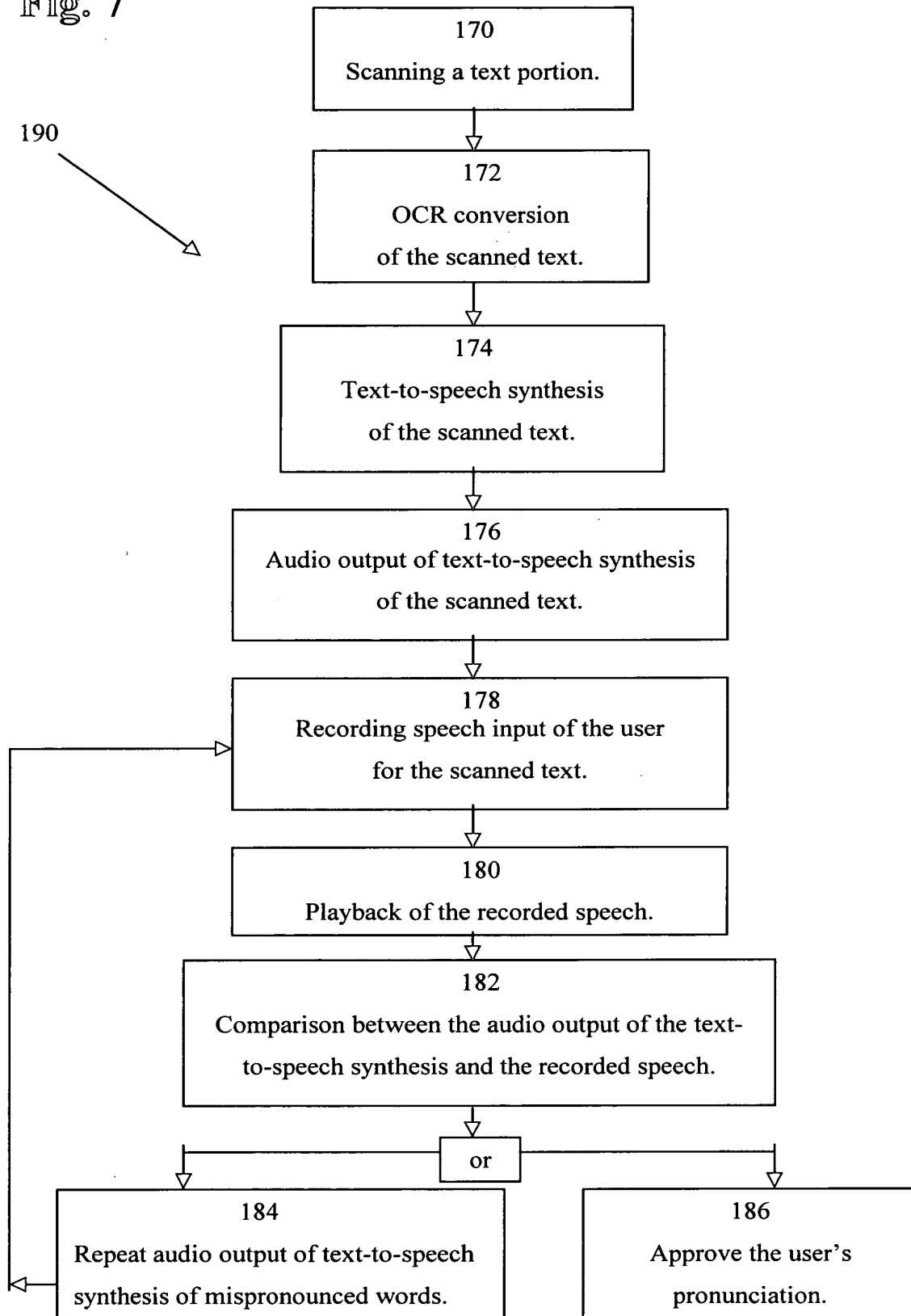


Fig. 8

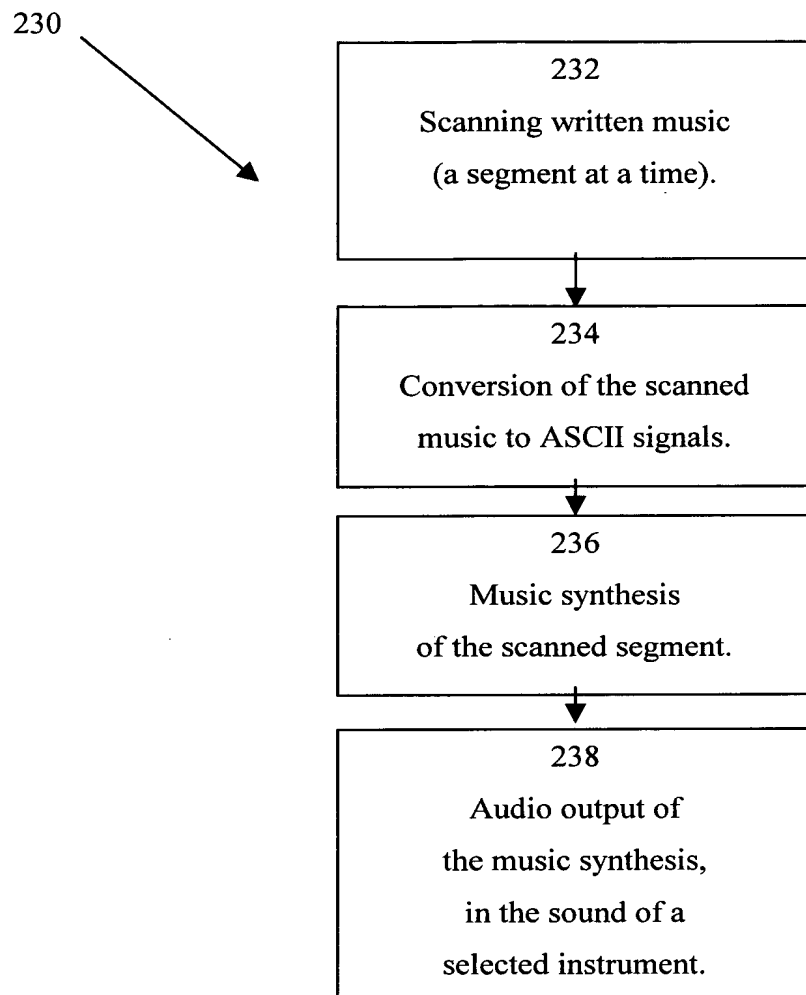


Fig. 9A

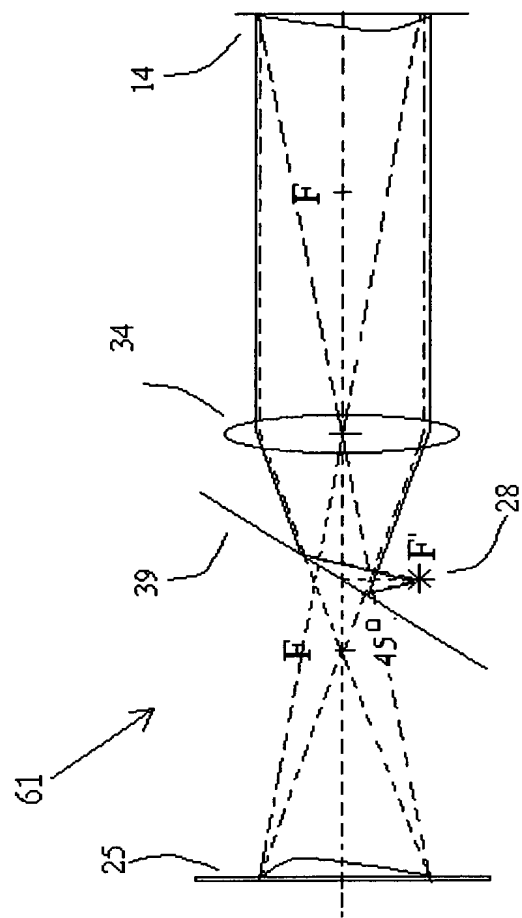


Fig. 9B

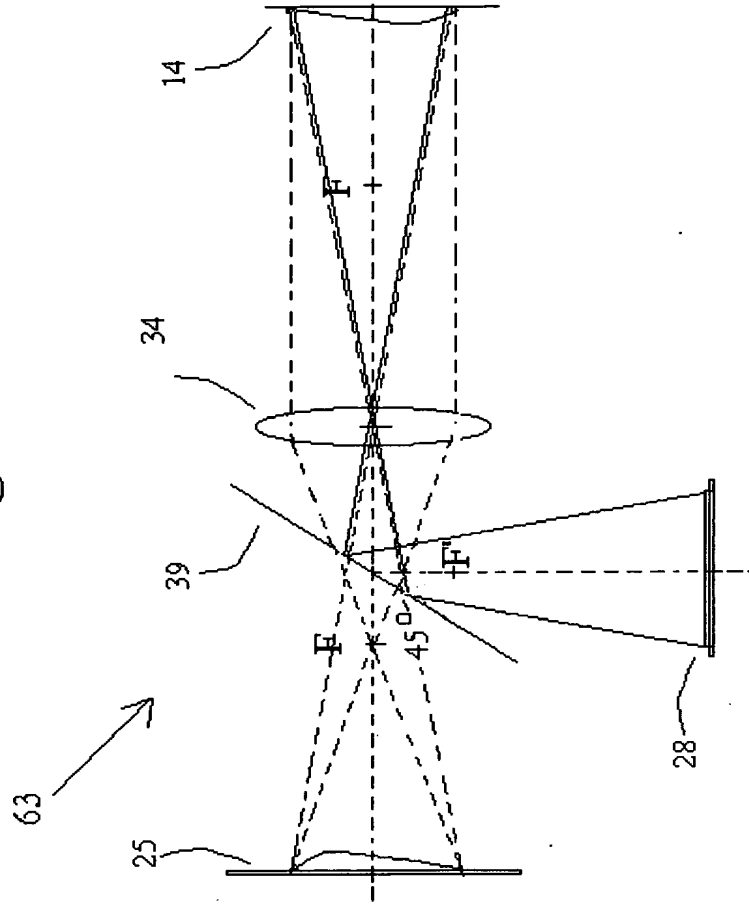
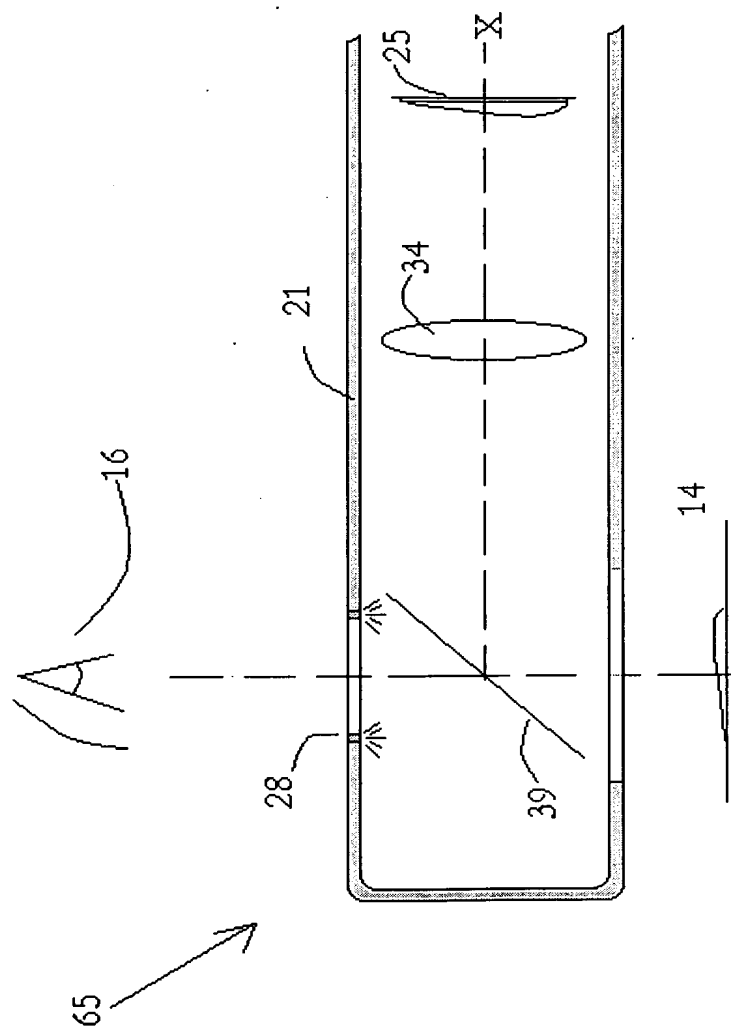


Fig. 9C



ארגון מגמה ירוקה נוסד בפברואר, 1997
 במטרה להביא לשינוי מהותי במודעות
 ורגישות הסטודנט הישראלי לנושאי איכות
 הסביבה.

Fig. 10A

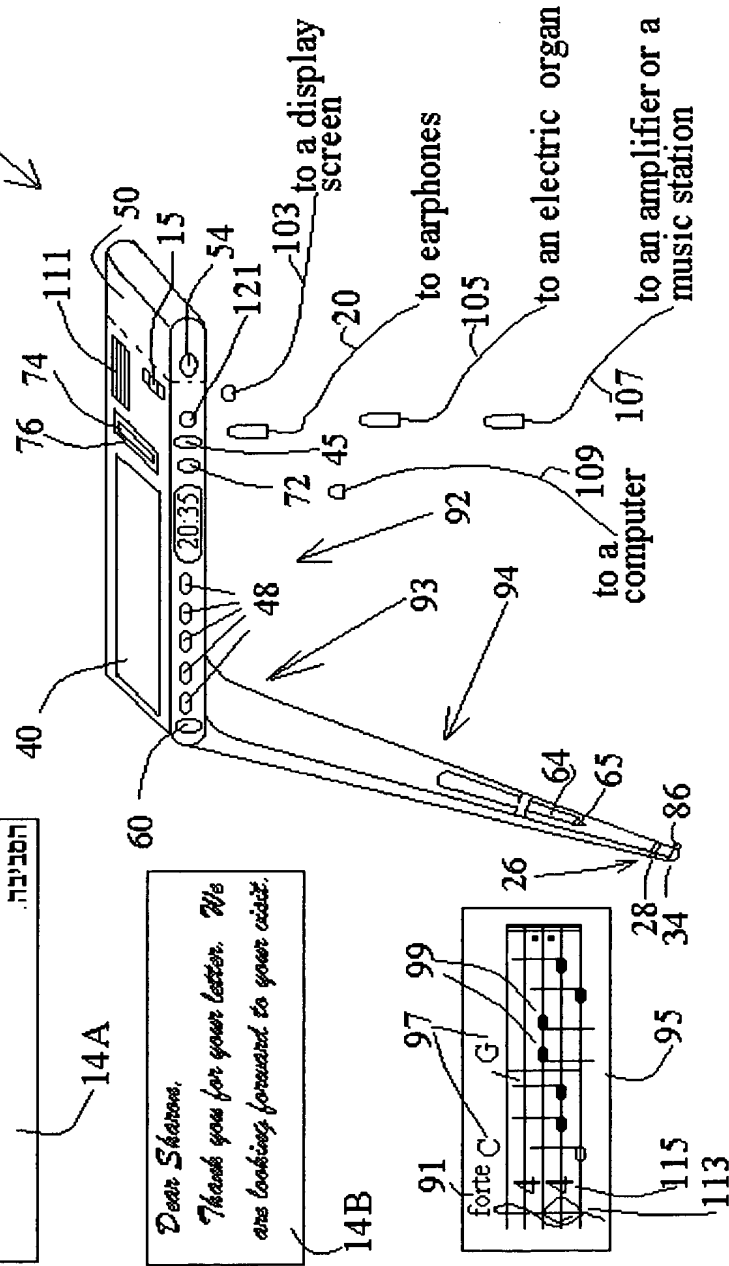


Fig. 10B

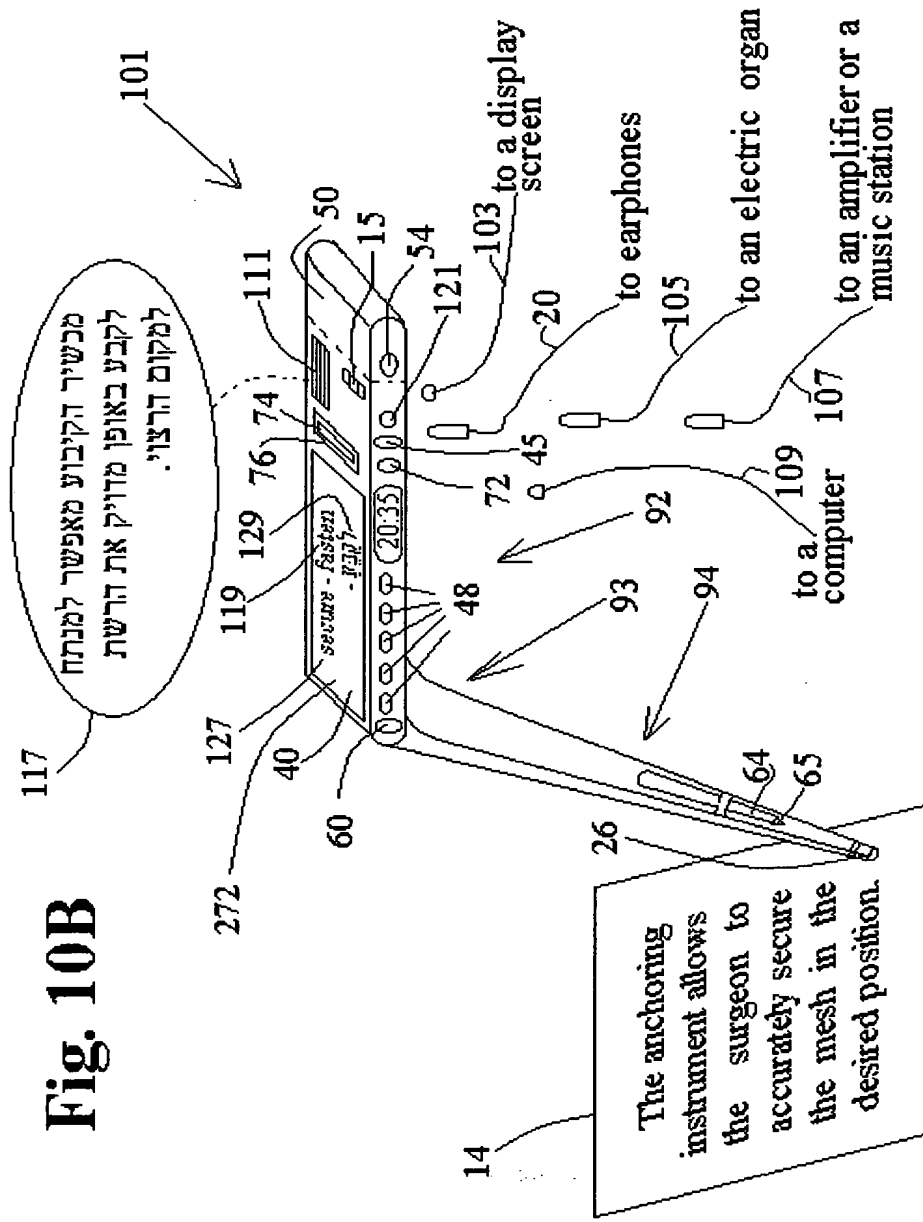


Fig. 11

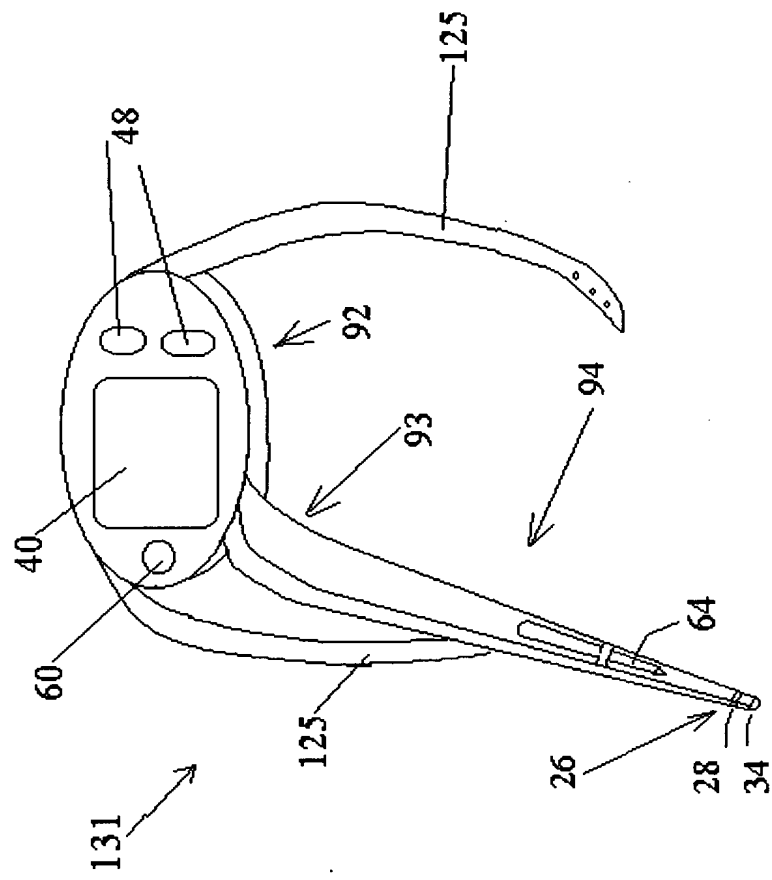


Fig. 12A

| | | | | | |
|-----------------------------------|---|-------------------------------|--------------------|--|----------------------------|
| grammatical unit | 340 The local ski resort was opened to visitors on Saturday morning, | | | | |
| major functional component | 342 The local ski resort | 344 was opened | 346 to | 348 visitors | 350 on Saturday morning |
| major component's function | 352 Subject: noun phrase | 354 Predicate: verb phrase | 356 preposition | 358 object: noun tangible, human plural | 360 adverbial phrase |

Fig. 12B

| | | | | |
|---|-----------------------------|-----------------------|------------------------------|--------------------------------------|
| major functional component | 342 The local ski resort | | | |
| basic functional component of dictionary-entry level | 362 The | 364 local | 366 ski | 368 resort |
| basic component's function | 372 article | 374 adjective 1 | 376 adjective 2 | 378 noun |
| basic component's attribute | 382 definite | 384 adjective form | 386 attributive noun form | 388 tangible, inanimate, singular |

Fig. 12C

| 390 | | | | |
|--|----------------|--------------------------------------|-------------|---------------------------------|
| <i>General Adverbial-Phrase Template</i> | | | | |
| <i>Preposition – Article - Adjective phrase(s) - Noun - Prepositional Phrase</i> | | | | |
| <i>Preposition</i> | <i>Article</i> | <i>Adjective Phrase(s)</i> | <i>Noun</i> | <i>Prepositional Phrase</i> |
| By the river | | | | |
| By | the | - | river | - |
| After dinner | | | | |
| After | - | - | dinner | - |
| By his wisdom | | | | |
| By | - | his | wisdom | - |
| With some luck | | | | |
| With | | some | luck | |
| In a minute | | | | |
| In | a | - | minute | - |
| With a piercingly loud and screeching scream | | | | |
| With | a | piercingly loud and screeching | scream | |
| By the rivers of Babylon | | | | |
| By | the | - | rivers | of Babylon |
| In consequence of my smoking | | | | |
| In consequence of | | | my | smoking |

Fig. 12D

| 392 <i>General Imperative-Sentence Template</i> <i>Imperative verb –Preposition – Article - Adjective phrase(s) - Noun phrase</i> | | | | |
|---|--------------------|----------------|----------------------------|-----------------------|
| <i>Imperative Verb</i> | <i>Preposition</i> | <i>Article</i> | <i>Adjective Phrase(s)</i> | <i>Noun Phrase</i> |
| Fast forward a decade. | | | | |
| Fast forward | - | a | - | decade |
| Return to sender. | | | | |
| Return | to | | | sender |
| Write down your great ideas about your book. | | | | |
| Write | down | - | your great | ideas about your book |
| Bring in your friend. | | | | |
| Bring | in | - | your | friend |
| Go! | | | | |
| Go | | | | |

Fig. 13A

| <i>Function</i> | <i>Attributes, 1st Level</i> | <i>Attributes, 2nd Level</i> | <i>Attributes, 3rd Level</i> | <i>Attributes, 4th Level</i> |
|-----------------|---|---|---|---|
| article | | | | |
| | indefinite | | | |
| | definite | | | |
| | | | | |
| noun | | | | |
| | intangible | | | |
| | | abstract | | |
| | | | singular | |
| | | | plural | |
| | | action | | |
| | | | active | |
| | | | | infinitive |
| | | | | gerund |
| | | | passive | |
| | | | | participle |
| | | | | |
| | tangible | | | |
| | | singular | | |
| | | plural | | |
| | | | male | |
| | | | female | |
| | | | | human |
| | | | | animal |
| | | | | vegetable |
| | | | | object |
| | | | | time |

Fig. 13B

| <i>Function</i> | <i>Attributes, 1st Level</i> | <i>Attributes, 2nd Level</i> | <i>Attributes, 3rd Level</i> | <i>Attributes, 4th Level</i> |
|---------------------|---|---|---|---|
| noun (continued) | | | | |
| | pronoun | | | |
| | | I | | |
| | | you | | |
| | | he | | |
| | | she | | |
| | | it | | |
| | | we | | |
| | | they | | |
| | | me | | |
| | | you | | |
| | | him | | |
| | | her | | |
| | | us | | |
| | | them | | |
| | | myself | | |
| | | yourself | | |
| | | himself | | |
| | | herself | | |
| | | itself | | |
| | | ourselves | | |
| | | yourselves | | |
| | | themselves | | |
| | | mine | | |
| | | yours | | |
| | | his | | |
| | | hers | | |
| | | ours | | |
| | | yours | | |
| | | theirs | | |
| | | this | | |
| | | that | | |
| | | those | | |
| | | these | | |
| | | who | | |
| | | what | | |
| | | which | | |
| | | whose | | |

Fig. 13C

| <i>Function</i> | <i>Attributes, 1st Level</i> | <i>Attributes, 2nd Level</i> | <i>Attributes, 3rd Level</i> | <i>Attributes, 4th Level</i> |
|-----------------|---|---|---|---|
| adjective | | | | |
| | adjective form | | | |
| | attributive noun form | | | |
| | gerund | | | |
| | participle | | | |
| | possessor | | | |
| adverb | | | | |
| | adverbial form | | | |
| | question words | | | |
| | | what | | |
| | | where | | |
| | | when | | |
| | | why | | |
| | | who | | |
| | | whose | | |
| | | whom | | |
| | | how | | |
| | | how come | | |
| | | which | | |
| | | | | |
| preposition | in | | | |
| | out | | | |
| | over | | | |
| | under | | | |
| | from | | | |
| | to | | | |
| | at | | | |
| | with | | | |
| | about | | | |
| | after | | | |
| | down | | | |
| | up | | | |
| | into | | | |
| | for | | | |
| | since | | | |
| | but | | | |

Fig. 13D

| <i>Function</i> | <i>Attributes, 1st Level</i> | <i>Attributes, 2nd Level</i> | <i>Attributes, 3rd Level</i> | <i>Attributes, 4th Level</i> |
|-----------------|---|---|---|---|
| verb | | | | |
| | intransitive | | | |
| | transitive | | | |
| | | passive | | |
| | | active | | |
| | | imperative | | |
| | | | present simple | |
| | | | present cont. | |
| | | | present perfect | |
| | | | past simple | |
| | | | past cont. | |
| | | | past perfect | |
| | | | future simple | |
| | | | | |
| | | | future cont. | |
| | | | future going to | |
| | | | modal | may |
| | | | | can |
| | | | | could |
| | | | | could have |
| | | | | would |
| | | | | would have |
| | | | | should |
| | | | | should have |
| | | | | might |
| | | | | might have |
| | | | | ought to |
| | | | | ought to have |
| | | | | will have |
| | | | | shall have |

Fig. 13E

| <i>Function</i> | <i>Attributes, 1st Level</i> | <i>Attributes, 2nd Level</i> | <i>Attributes, 3rd Level</i> | <i>Attributes, 4th Level</i> |
|-----------------|---|---|---|---|
| conjunction | | | | |
| | however | | | |
| | whatever | | | |
| | wherever | | | |
| | whenever | | | |
| | wherein | | | |
| | whereas | | | |
| | that | | | |
| | after | | | |
| | because | | | |
| | since | | | |
| | why | | | |
| | where | | | |
| | how | | | |
| | when | | | |
| | and | | | |
| | but | | | |

Fig. 14

| 430 Exposure Basis | |
|--|---|
| 440 English | 450 Hebrew |
| <p>The local ski resort was opened to visitors on Saturday morning, after some 70 centimeters of snow piled up in the area, in a snow storm that began Wednesday night. The resort management said that skiing will not be possible yet, because there was not enough snow on the mountain to enable safe skiing. Lower regions witnessed heavy rains and hail. As a result, rivers and streams filled up. The storm is expected to end on Saturday.</p> | <p>אתר התיירות המקומי נפתח למבקרים בשבת בבוקר, אחרי שכ-70 סמ' של שלג נערמו באזור, בעת סופת שלג שהחלה ביום רביעי בערב. הנהלת האתר מסרה כי עדין לא ניתן לגלוש מאחר ואין מספיק שלג על ההר לאפשר גלישה בטוחה. באזורים הנמוכים יותר ירדו גשמים עזים וברד. כתוצאה מכך, נהרות ונחלים התמלאו. הסופה אמורה לשכוח בשבת.</p> |

Fig. 15A

| Grammatical Units and Their Corresponding Functional Templates | |
|--|--|
| Grammatical Unit, 1 st language | 442 The local ski resort |
| Functional Template, 1 st language | 444 definite article, adjective 1 (adjective form), adjective 2 (attributive noun form), noun (tangible, object, singular). |
| Functional Template, 2 nd language | 454 noun (tangible, object, singular, male), definite article, adjective 2 (possessive form), definite article, adjective 1 (adjective form). |
| Grammatical Unit, 2 nd language | 452 אתר הסקי המקומי |

Fig. 15B

| Grammatical Units and Their Corresponding Functional Templates | |
|--|--|
| Grammatical Unit, 1 st language | 442 The local ski resort |
| Functional Template, 1 st language | 444 definite article, adjective 1 (adjective form), adjective 2 (noun form), noun (tangible, object, singular). |
| Functional Template, 3 rd language | 464 definite article (female), noun (tangible, object, singular, female), adjective 2 [prepositional phrase (preposition, noun (male form, singular))], adjective 1 (adjective form, female). |
| Grammatical Unit, 3 rd language | 462 La station de ski locale |

Fig. 15C

| Grammatical Units and Their Corresponding Functional Templates | |
|--|--|
| Grammatical Unit, 2 nd language | 452 אתר הסקי המקומי |
| Functional Template, 2 nd language | 454 noun (tangible, object, singular, male), definite article, adjective 2 (possessive form), definite article, adjective 1 (adjective form). |
| Functional Template, 3 rd language | 464 definite article (female), noun (tangible, object, singular, female), adjective 2 [prepositional phrase (preposition, noun (male form, singular))], adjective 1 (adjective form, female). |
| Grammatical Unit, 3 rd language | 462 La station de ski locale |

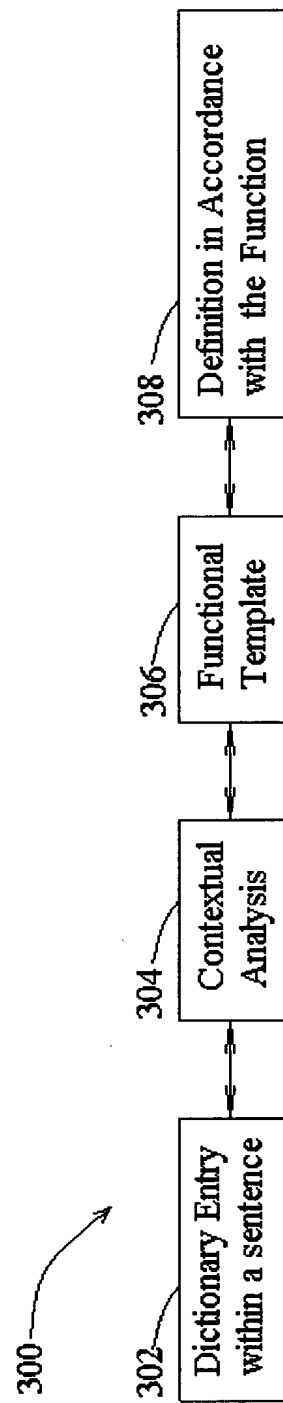


Fig. 16

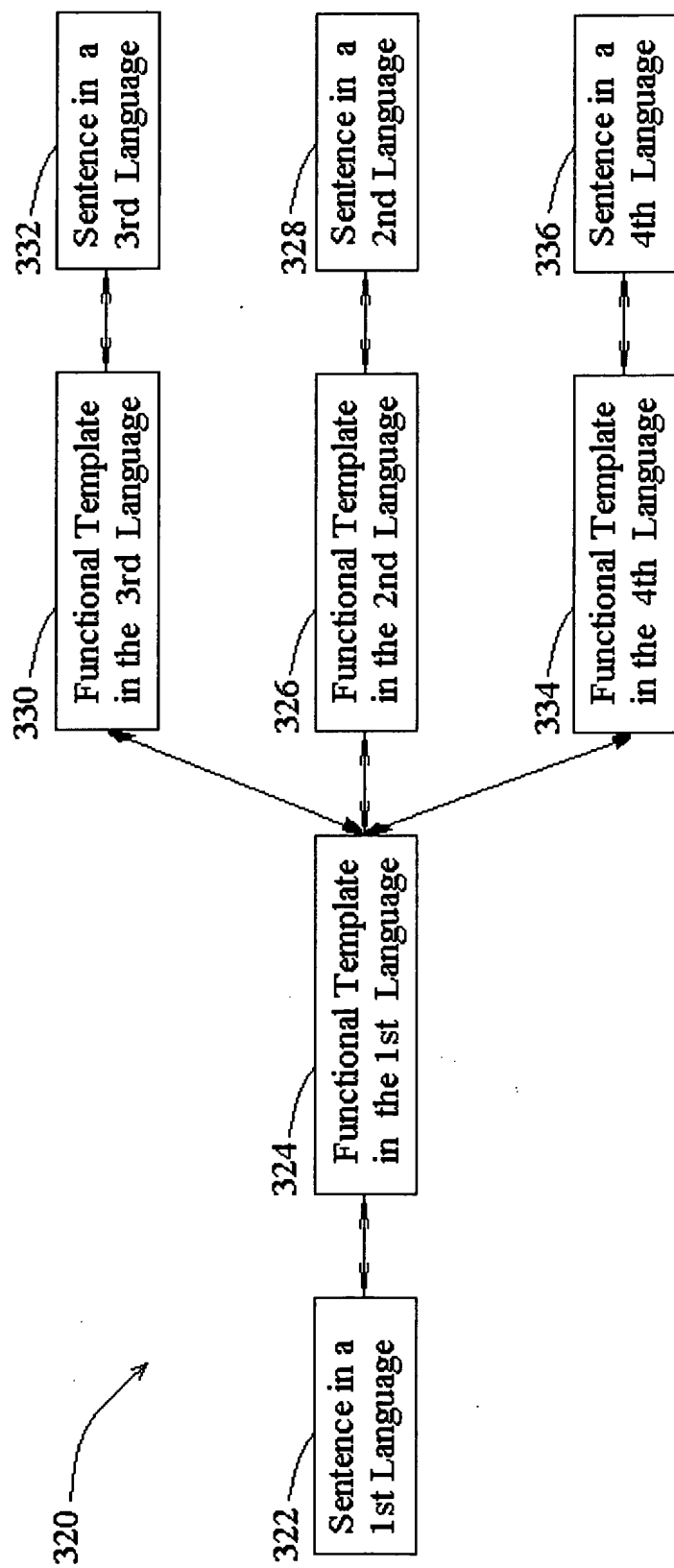


Fig. 17A

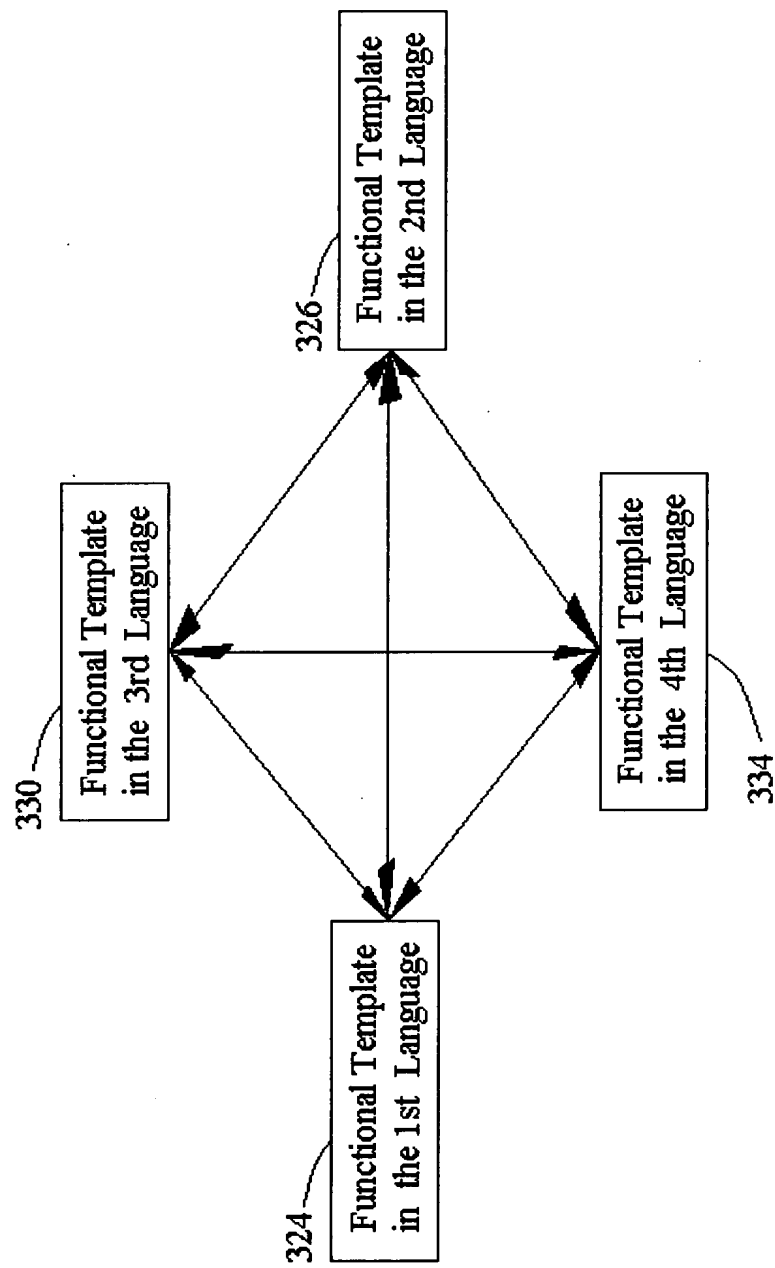


Fig. 17B

Fig. 18A

400

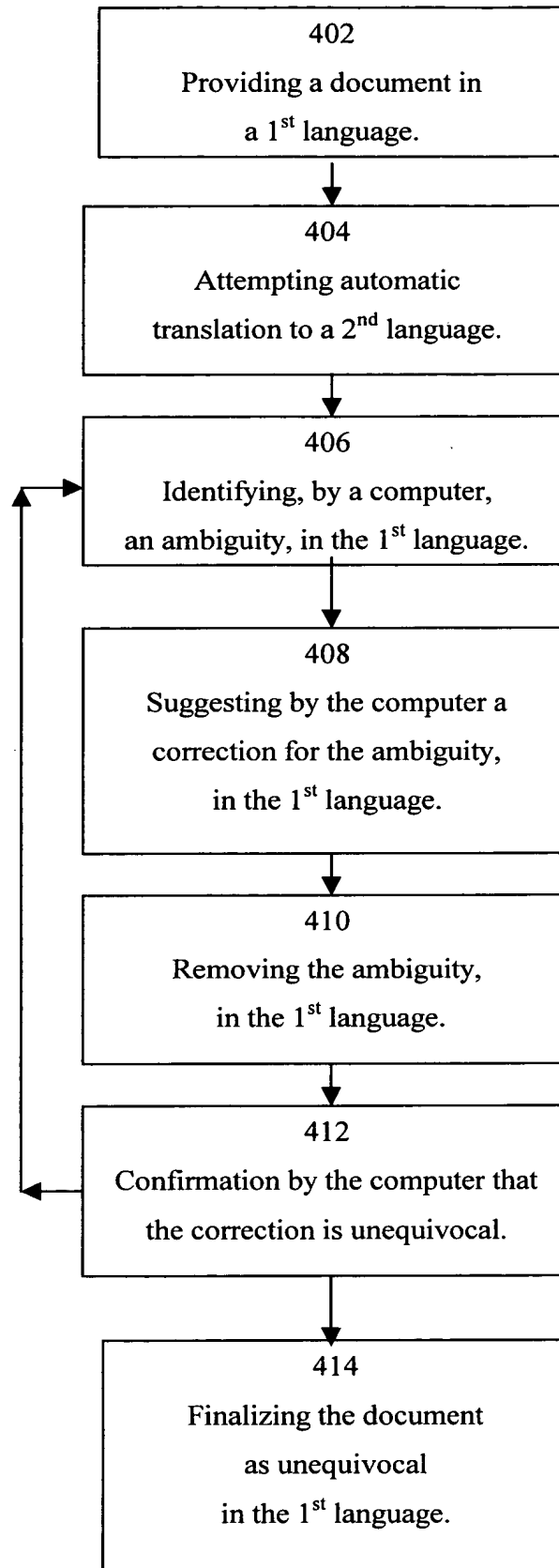


Fig. 18B

480

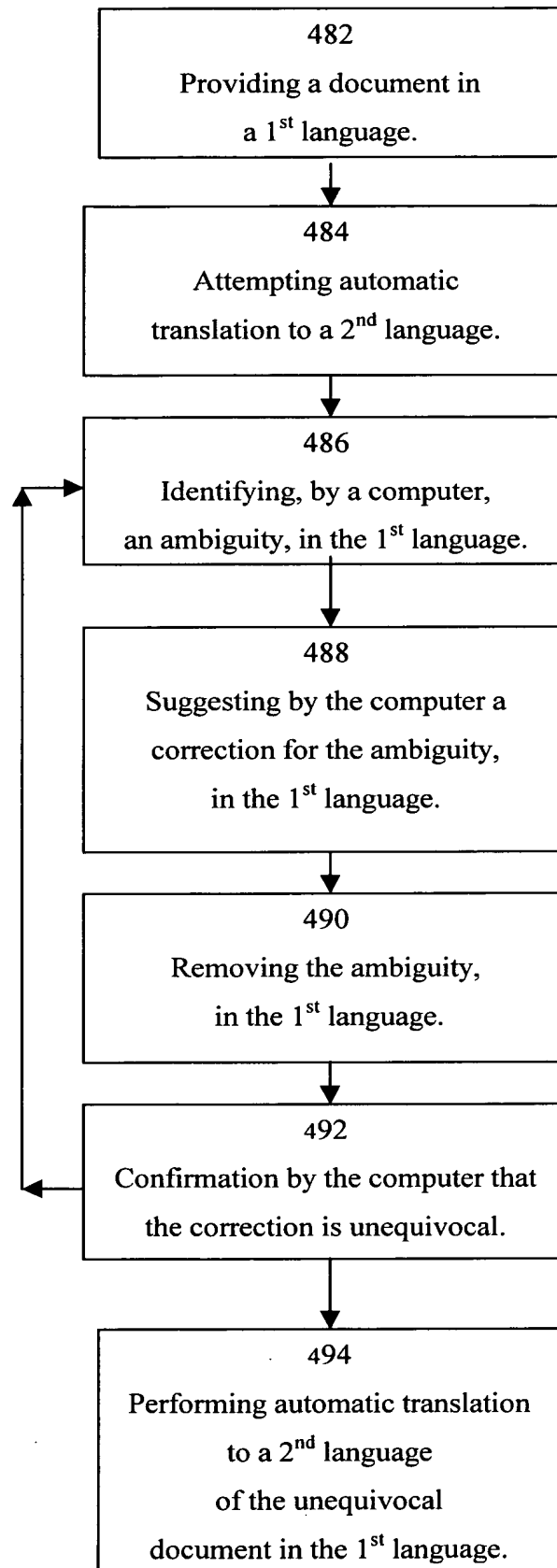


Fig. 18C

500

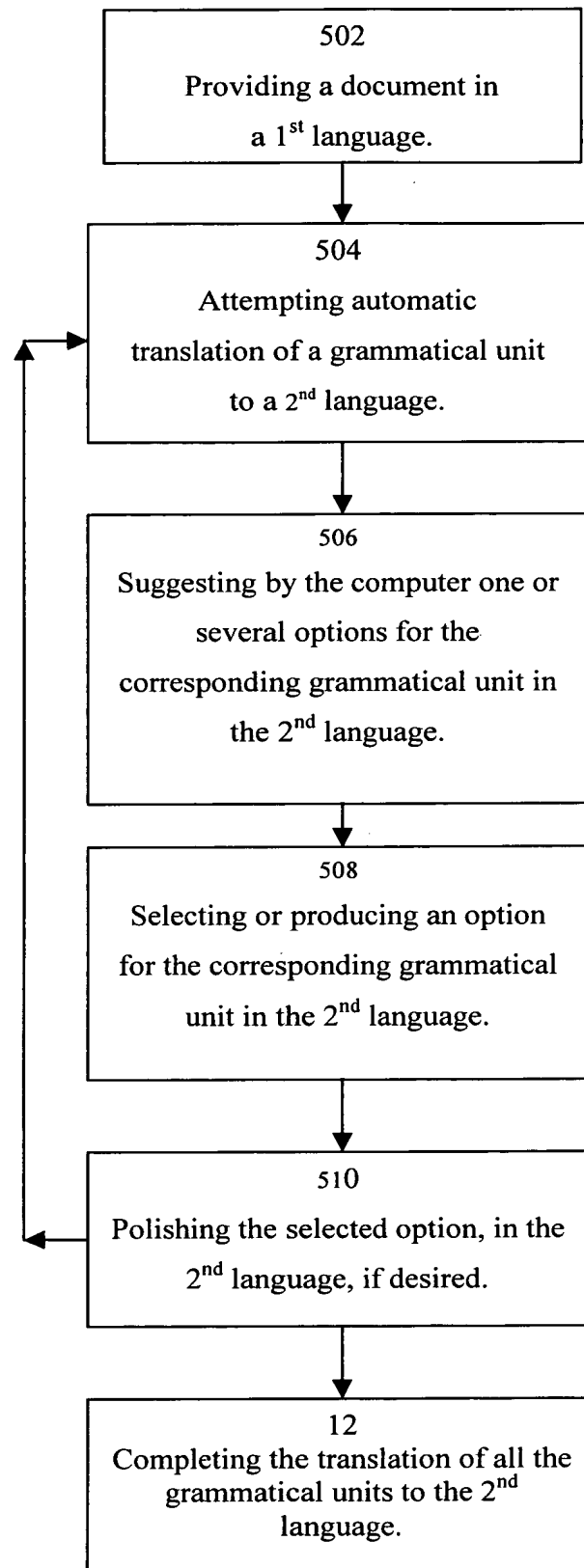


Fig. 18D

520

